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ABSTRACT

Various theoretical frameworks approach teacher change differently. If teacher candidate supervisors adopt one form of supervision without understanding the assumptions and implications of other models, they risk being too narrow. To help supervisors in their role, an explanation of how a supervisor might intervene from six different perspectives is offered here. These perspectives include behaviorism, information processing, radical constructivism, social constructivism, a humanistic-process approach, and an inquiry approach. A supervisor's interventions in response to a teacher candidate's lesson are likely to vary when teacher educators apply different perspectives. Each perspective will create differences regarding the learner, the knowledge, and teacher education. The paper opens with a scenario that portrays a lesson taught by a teacher candidate. The author then explores basic premises underlying each perspective and addresses their integration. The paper concludes with the hope that an extensive understanding of a range of theories will enable supervisors to capitalize on teachable moments. A table offers a synopsis of theoretical perspectives within teacher education. (Contains 40 references.) (RJM)

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Supervision from Six Theoretical Frameworks

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Author Note

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Excerpts from this paper are included in the author's discussion of her theoretical framework within her dissertation. Nancy Winitzky's comments on earlier drafts warrant special thanks.

Abstract

Various theoretical frameworks approach teacher change differently. If teacher candidate supervisors adopt one framework without understanding the assumptions and implications of others, they risk being too narrow. That is, absent a supervisory repertoire, they may miss opportunities to capitalize on teachable moments. The assumption is that many forms of supervision are appropriate under a constructivist umbrella. An important question, nevertheless, is under what circumstances are certain approaches appropriate.

This paper begins with a scenario that portrays a lesson taught by a teacher candidate. A discussion follows concerning ways a supervisor might intervene from six perspectives. Further, I explore basic premises underlying each perspective, and address their integration. Finally, I make recommendations for future inquiry based on the evidence for supervisory interventions generally.

Supervision from Six Theoretical Frameworks

Introduction

Within the teacher education literature, tension exists between several camps of researchers because they do not espouse the same theoretical perspectives. This tension stems in part from the varying assumptions of each perspective about learners, knowledge and teacher education. From each view, the categories of teacher knowledge set forth by Shulman (1987) take on different meanings with more emphasis on some categories than others. The perspective that teacher candidate supervisors embrace, therefore, influences the way they approach teacher change as they work with candidates.

If supervisors adopt one framework without understanding the assumptions and implications of others, they run the risk of being too narrow. With an extensive understanding of a range of theories, those engaged in supervision are better able to capitalize on teachable moments. Further, NCATE and many scholars within education maintain that programs should be grounded in at least one theoretical perspective to legitimate practice.

This paper begins with a scenario that describes the basic features of a lesson given by a teacher candidate in family and consumer sciences. A discussion follows concerning ways a university supervisor might approach the situation from six theoretical perspectives. They include: (a) behaviorism, (b) information processing, (c) radical constructivism, (d) social constructivism, (e) a humanistic process approach, and (f) an inquiry approach. Further, I explore the basic tenets of each perspective. Finally, I address the integration of perspectives and the amount of empirical evidence for supervisory interventions generally.

Teacher Candidate Supervision: Six Perspectives

Viewed through each of six theoretical perspectives, a teacher educator's understanding of and approach to teacher candidate supervision would likely differ. In the following scenario, I portray some prominent features of a lesson given by a teacher candidate. The setting is a high school interior design class. I then address some ways a supervisor might view the lesson and intervene.

> At the beginning of the lesson, Mr. Jones placed a transparency of Frank Lloyd Wright's Robie House on the overhead as an illustration of prairie-style architecture, the lesson topic. During the next 25 minutes, students remained silent and looked lethargic while Mr. Jones presented information about the architectural style in a somewhat disjointed lecture. Three questions that could have facilitated dialogue were asked and abruptly answered by the teacher candidate as part of the lecture. During the second half of the class period, students worked in small groups. They had trouble getting started on the assignment because the directions were incomplete. After each group independently asked the teacher candidate several questions, each began writing a story using the characteristics defined earlier. Seconds before the bell rang Mr. Jones got up from his desk and had students pass their stories to the front.

A few problematic aspects of the lesson include: (1) students were not active during a major portion of the lesson, (2) the candidate did not assess the students' background knowledge or understanding during the lesson, (3) the directions for the learning activity were unclear, (4) the lesson was not connected to daily living, and (5) the candidate did not debrief students' group processes.

A teacher educator would probably view the candidate as not demonstrating the ability to carry out specific teaching skills from a behaviorist orientation. Specific actions that the teacher candidate needs to display in the future to demonstrate mastery would likely be prescribed by the supervisor. Supervision from this perspective is unique in that the supervisor would be prescriptive without inquiring into concerns that influence the use of each skill.

From an information processing perspective, a teacher educator may see the teacher

candidate as not utilizing the knowledge base as a basis for decision making and action. The supervisor might ask the candidate about specific parts of the lesson to activate existing schemata. Then together they would brainstorm and discuss solutions to problems with emphasis on solutions emanating from research. The decision about what to do would be up to the teacher candidate. Supervision from this perspective is unique in that the supervisor would attempt to help candidates use the knowledge base to analyze and solve problems.

Guided by radical constructivism, a teacher educator may conclude that the students were unable to construct the concepts during the lesson. The candidate taught the content directly rather than imbedding it within a situation in which students had to make decisions or solve a problem. From this perspective, a supervisor is likely to ask questions to facilitate the construction of the problem. One question might include "How could you tell that students were learning during the first half of the lesson?" Once the teacher candidate had constructed the problem, the construction of solutions could be the focus of discussion. The questions would focus on the unique features of the problem although the supervisor could guide the discussion toward research based solutions. Any specific suggestions from the supervisor, however, would come out of the discussion rather than being planned.

The supervisor may see the instruction as having little meaning for students from a social constructivist perspective. During the lesson, the teacher candidate and students were unable to negotiate the meaning of the content as a community of learners. Viewed from this perspective, the supervisor would likely be assertive in directing the conversation toward a consensus of meaning regarding various aspects of the lesson, i.e., what it means for students to actively construct meaning versus being passive recipients during a lesson.

The instruction is not the focus of supervision from a humanistic process approach. Instead, the aim is to help teacher candidates find their own best way. To debrief the observation, a teacher educator would ask questions to help the candidate evaluate his own performance. Some questions might include: (a) Describe the lesson back to me, (b) What aspects of the lesson do you think went well?, (c) What did not go well during the lesson?, and (d) How would you make changes in the lesson?

From an inquiry orientation, a supervisor would prompt the candidate to reflect on whether the content and teaching process were justifiable for specific groups of students. Specific attention would center on the candidate's theoretical commitments underlying his actions, their unanticipated outcomes for all learners and the general development of his perspective (Zeichner & Liston, 1987). Five possible issues that the supervisor could address include: (a) the lecture's appropriateness for a diverse group of learners, (b) the purposes of education, (c) the assessment of students' group processes, (d) the assessment of students' understandings during the lesson, and (e) the content's connection to students' lives.

To uncover the candidate's theoretical commitments, the supervisor might ask him what his goals were for specific groups of students, for the class generally, and what he felt were the purposes of education. If he indicates, for example, that the purpose of education is to memorize facts, the supervisor could review with him how people learn facts, and have him assess the lesson in terms of what students were able to memorize. In addition, the supervisor could give examples of what students are able to do having memorized certain facts. The supervisor could also offer other options from the larger universe of possibilities in terms of the purposes of education. The most dominant options would be the ability to think about

problems from multiple perspectives and create a more humane and democratic society. Further, the supervisor could ask the candidate to compare his lesson with these purposes and work toward implementing them in future lessons.

In sum, supervisory interventions in response to a candidate's lesson are likely to vary when teacher educators apply each perspective. The differences are due to the assumptions underlying each perspective concerning the learner, knowledge and teacher education (For a summary, see Table 1). In the sections that follow, I address the assumptions of six perspectives.

Teacher Change from a Behavioral Perspective

Groundwork for the behaviorist perspective began long before the turn of the century. Locke (1690), for example, envisioned learners as blank slates to be written on with experience. Along this same line of reasoning, Hume (1739) regarded only quantifyable phenomena as worthy of being labeled "knowledge," and advocated that all other notions in print be torched. Over time other theorists such as Mill (1829), Pavlov (1927, 1928), Watson (1924), and Skinner (1953) contributed to and refined these notions into what Watson coined "behaviorism."

Competency based teacher education (C/PBTE) was the most extensive application of behaviorism by teacher educators. It appeared in the late 1960's as an afterglow of behaviorism and reached its zenith from 1970 to 1975 (D. Kauchak, personal communication, September 4, 1996). Viewed through C/PBTE, teacher educators saw teaching as an applied science in which the findings of task analyses were set in motion. They organized instruction, therefore, to reinforce tasks or skills to the point where preservice teachers could execute them

(Tom, 1980).

Reynolds, Sinatra, and Jetton (1996) indicate that success in executing skills was maximized because each was broken apart into tiny increments (approximately 10,000 competencies). To assess the proficiency of candidates, teacher educators often used simulated teaching environments to observe their performance. A set of explicit criteria served as the basis for measuring success.

Behaviorism receives severe criticism within the scholarly community on several counts. First, although several approaches exist within the behavioristic paradigm, virtually the only time prior knowledge is of concern occurs when a deficiency exists that prevents an appropriate response (candidates have not previously formed the correct associations). Second, because "thinking" has no place in behavioral orientations, the execution or imitation of a skill excludes inquiry into concerns that influence its use, i.e., educational ends, student attributes, contexts. Mastery of the technical knowledge considered most effective is an end by itself rather than being a means for strategic action and problem solving (Reynolds et al., 1996).

Teacher Change from Constructivist Perspectives

Educational researchers from many theoretical orientations identify themselves with constructivism (Derry, 1996), the notion that to make sense of information, students transform and organize it according to their prior knowledge (Fosnot, 1989). Researchers varying theoretical accounts exist within one of the following two categories of constructivism: (1) cognitive constructivism and (2) social constructivism. Within both categories, they conceptualize versions of constructivism as extending along several continuums (see Phillips,

1995; Reynolds et al., 1996).

One of the most important of these continuums focuses on the construction of knowledge as an active process. Derry indicates that weak or more conservative approaches explain the construction of knowledge as being a less active process. In contrast, more radical accounts describe knowledge construction as being much more active processes.

Accounts near the weak end of the continuum are seen as closely aligned with a positivist view of knowledge in which experience produces knowledge within an individual. The individual is viewed as a passive receptacle for storing or copying this knowledge. An individual's perception, therefore, is believed to approximate a one-to-one correspondence with reality. It is assumed that it is possible to perceive reality objectively. Perspectives at this end of the axis are "minimally constructivist in orientation, or are not constructivist at all" because human activity in constructing knowledge is insignificant (Phillips, 1995, p. 7).

Versions that approach the middle of the continuum are seen as closely aligned with a post-positivist view of knowledge in which individuals are viewed as being more actively involved in constructing knowledge. Although objectivity is also a goal within this orientation, knowledge of the world is viewed as constrained by interaction with others. An individual with a post-positivist orientation believes that not everything of importance can be measured.

Opposite positivism on the continuum lies post-modernism, a reaction against fragmentation. Within post-modern views of constructivism, the ability to perceive reality is believed to be impossible because every individual's background is value-laden and colors the way the world is viewed. All knowledge, therefore, is seen as having been actively produced

by people and not constrained by experience. Advocates of this orientation avoid categorizing and labeling phenomena to the point that explanations are not generalizable. Explanations then, are valid only if useful in helping individuals to achieve goals within specific contexts.

Controversial Issues

An extremely controversial issue is where various theories lie along this continuum. For example, researchers have written some biting critiques of conceptual change learning because constructivism, a basis of the theory, is assumed to be an outgrowth of empiricism (See, for example, O'Loughlin, 1992). Within the revisionist account of conceptual change learning, however, Strike and Posner (1992) indicate that an intent of the theory was to get away from empiricism. Similarly, if an individual were to ask von Glasersfeld to place his conceptualization along the continuum, he certainly would not place it near positivism. Some sociocultural scholars, however, would place all forms of cognitive constructivism near positivism.

The reason that some scholars align cognitive constructivism with positivism is because they view it as emanating primarily from Piaget. And, the pedagogical practices constructed by educators to correspond with his theories are seen as strictly adhering to empiricism. The underlying assumption is made that educators who are guided by constructivism do not negotiate the meaning of the subject matter with students. In essence, a strict dichotomy is set up between cognitive and social perspective theories to the point that an intersection or integration is not acknowledged.

There is no denying that some educators do indeed expect students to invent or discover concepts in an environment that lacks social negotiation. Some instructors' conceptions of

constructivism are for students to take from instruction the meaning each happens to construct on his or her own. As mentioned previously, however, a strict adherence to empiricism is not constructivist. Further, although constructivism does focus primarily on cognitive considerations, most educators do recognize that the integration of affective and social considerations is paramount. Bereiter (1994) mentions, for example, that constructivism has integrated socioculturalism.

Another nebulous aspect of constructivism is the way it plays out within the classroom. Disagreement exists over whether it is a learning or teaching theory. Some researchers see constructivism as more of a learning theory (N. Winitzky, personal communication, September 5, 1996). Others describe in detail how they have utilized it as a theory for teaching (See Richardson, 1992; and Schifter, 1996, for example).

The word "problematic" is an understated descriptor of the conversation that occurs regarding constructivism. Often times, individuals who espouse constructivism are unable to communicate with one another because each has made different inflexible assumptions. Three of the vast number of disagreements concern whether knowledge is individually or socially constructed, the view of knowledge associated with various accounts, and whether constructivism pertains more to teaching or learning. The inability to resolve these and other discrepancies can prompt extreme frustration.

Within the sections that follow, I will briefly address teacher change from three constructivist perspectives. These perspectives include information processing, radical cognitive constructivism, and social constructivism.

Information Processing

From the perspective of cognitive information processing, theorists believe the mind carries out various processes. Thinking about the mind as having components for processing has helped them to explain how individuals "learn, remember and use knowledge" (Andre & Phye, 1986).

Driscoll (1994) notes that cognitive information processing goes beyond behaviorism in an attempt to understand what happens between the inputs and the outputs. From this orientation, individuals are much more active. A primary assumption is that learning depends on what students do, rather than being attributed solely to environmental events (Gredler, 1992). Wittrock (1990) further explains this notion:

> The brain is not a passive consumer of information. . . . The stored memories and information-processing strategies of our cognitive system interact with the sensory information received from the environment, selectively attend to this information, relate it to memory, and actively construct meaning for it (p. 348).

Gredler (1992) indicates that an individual's ability to process information "from the environment" is vital in terms of the complex tasks engaged in daily (p. 171). These tasks require that individuals "perceive, organize, and remember information," one of two major focuses of cognitive information processing (p. 171). The other focus has been to examine the processes of problem solving.

When teacher educators use the information processing perspective, they carefully structure instruction to parallel the processes of the acquisition of new information by "(a) guiding the reception of new stimuli, (b) facilitating encoding, and (c) facilitating storage and retrieval" (Gredler, 1992, p. 192). The aim has been to help teacher candidates develop

"cognitive structures that provide them with socially common knowledge and ways of analyzing and dealing with problems" (Andre et al., 1986, p. 16). Teacher educators' efforts can be viewed as attempts to gradually move novices toward expertise in terms of knowledge and skill development (Derry, 1996).

To accomplish this aim, teacher educators endeavor to link new information with teacher candidates' prior knowledge, expand their knowledge structures, and provide opportunities for them to utilize this knowledge to solve problems within the classroom. Schema-based instruction and the Ausubel Model are two examples of the strategies utilized (Gredler, 1992).

Radical constructivism. When scholars outline the epistemological assumptions of radical constructivism, they often cite von Glasersfeld. According to von Glasersfled (1995), the knowledge within a discipline should not to be considered truth because reality is impossible to discern. Disciplinary knowledge can be more accurately described as a collection of abstractions and models that people have constructed to aid them in managing their world.

Knowledge for one individual, then, will not necessarily serve as knowledge for another because each person's background knowledge functions to transform and organize information. In this way, background knowledge serves as a filter to help an individual make sense of new information (Fosnot, 1989). Therefore, ideas that help one person to act or solve a problem may not be useful to another (von Glasersfeld, 1995).

Derry (1996) succinctly describes how theorists use the concepts of assimilation, accommodation, disequalibration, and reflection to explain how changes in a student's thinking

occur. When possible, students assimilate new information by connecting it with their existing knowledge. If information is not understood within their existing schemas, the teacher must provide activities which cause each to reflect relative to a chosen goal. Through reflection, particularly about sensory-motor use, each student gradually reorganizes his or her own thinking. Important within radical constructivism is that content is never taught directly but is named by students "in the context of work and discussion" (Derry, 1996, p. 166).

Researchers have published explicit descriptions about how radical constructivism plays out within a variety of educational settings (see for example, Richardson, 1992; Shifter, 1996). Unfortunately, accounts within teacher education are sparse (N. Winitzky, personal communication, September 7, 1996).

Social constructivism. The explanation given by Fowler (1994) of Vygotsky's research emphasis seems to also apply to the range of theories within social constructivism. Fowler (1994) notes that Vygotsky sought to determine how factors outside the person, namely the "historical, institutional, cultural setting" gradually reorganized consciousness or mental functioning (Wertsch, 1991, p. 115).

This emphasis is quite different from that of cognitive constructivism. To distinguish between the two, Reynolds et al., (1996) state:

> Cognitive constructivism examines how individuals construct their own understandings of the world through problem solving with objects and others. In contrast, theories from a social constructivist perspective place their emphasis on the influence of the social context on the construction of knowledge (p. 98).

Although several distinct theories exist within social constructivism, all share the

common tenet that the internalization of social interaction determines learning or higher forms of cognition. Theorists believe that this internalization is mediated by using language or other symbol systems (Reynolds et al., 1996).

Like radical cognitive constructivism, accounts of how social constructivism play out within teacher education are also sparse. Nevertheless, several conditions for use within classrooms generally have come out of social constructivism that also seem relevant for teacher education. Two of these conditions include opportunities for social interaction, and assertiveness by the instructor.

Cobb (1996) explains that within social constructivism students are viewed as coopting or continually using each others knowledge. The implication then, is that teacher educators provide teacher candidates with many opportunities to interact with them and each other. Further, because these theories view the instructor as a negotiator between students' meanings and cultural meanings (Cobb, 1996), teacher educators should play a more assertive role within the classroom than would be the case within radical cognitive constructivism. Vygotsky (1987) indicated that the teacher "explains, informs, corrects, and forces [preservice teachers] to explain" themselves (p. 215-216). In this way, an instructor can diagnose prior knowledge and insure that each student advances (Fowler, 1994). Although the focus of social constructivism centers on aspects of teaching that have in the past been seriously neglected (i.e., social reproduction and situated theories), the emphasis of social constructivism remains on "the social construction of knowledge" rather than on what individuals understand (Reynolds et al., 1996).

Teacher Change from a Humanistic Process Perspective

The epistemological basis of the humanistic process approach is phenomenology (Zeichner, 1983). From this perspective, teacher educators view learning to teach as a personal endeavor that is closeup, something teacher candidates do that is deeply personal (Carter & Doyle, 1996). Therefore, teacher educators emphasize the uniqueness, complexity and richness of each candidate's experience in the process of becoming a teacher (Bullough, 1995).

The nature of candidates' beliefs is central to this view of teacher education. Deeply held beliefs that limit meaning and action are thought to be the basis of practice, and are the foundation of candidates' conceptions of self (Bullough, 1995). Carter and Doyle (1996) note that preservice teachers' personal understandings are "profoundly systematic and theoretical" in terms of the "organizing and explanatory function" they serve (p. 134).

The way this perspective plays out within teacher education differs dramatically from behavioral, information processing, and social constructivist perspectives. A major difference is that teacher educators rarely define in advance the skills and knowledge needed for teaching because they are not seen as something that can be objectified outside of the individual (Carter & Doyle, 1996; Zeichner, 1995). Doing so would be in opposition "to the development of mature and competent teachers" (Zeichner, 1995, p. 5). In addition, evaluating competence is not a primary focus because of the place teachers stand in the process (Bullough, 1995).

The aim of teacher education then, is to promote psychological maturity or adult development in the process of becoming (Zeichner, 1983). Learning to teach is seen as motivated by "personal dispositions rather than the curriculum of teacher education" (Carter et al., 1996, p. 122). Consequently, teacher educators strive to be responsive to candidates'

concerns, needs, and meanings in a supportive environment (Zeichner, 1983). Bullough (1995) states, "Accepting, honoring, and building upon this diversity, without losing sight of the way in which stories cross and touch one another, may be the single most important challenge facing teacher educators" (p. 22). Each candidate, therefore, is encouraged to find his or her own best way by determining the direction "of his or her own professional education" (Zeichner, 1983, p. 5).

An assumption of the humanistic process approach is that teaching is "living out one's narrative of experience," and is continually undergoing revision (Carter et al., 1996, p. 124). Thus, if teacher candidates know themselves they will be more open to other alternatives. To understand what they have learned through their experience and to make their beliefs explicit, teacher educators encourage candidates to construct and examine their own narratives. Narratives can be constructed using various means such as currere, personal narratives, collaborative autobiography, personal histories, and metaphors (Carter et al., 1996).

Narratives provide teacher educator's with multiple opportunities to help candidates grow as they reconstruct their beliefs. Through intimate conversations, teacher educators have many occasions to pose questions which prompt reflection (M. Burbank, personal communication, May 13, 1997). Similarly, by comparing metaphors (a way to summarize beliefs), teacher candidates are also provided with opportunities for restructuring (Bullough, 1995). Carter et al. (1996) indicate that transformation and reconstruction come at times when candidates are faced with contradictions between their images of teaching "and the demands of situations" (p. 125).

Teacher Change from an Inquiry Perspective

Guided by an inquiry orientation, teacher educators view teacher education as an important means to increased democracy where all people have economic opportunity and the "common good" predominates over individual gain (Zeichner, 1993). Two central notions underlying this orientation include: (a) education can help to reconstruct the social order, and (b) education has helped to create inequity among various groups (Feiman-Nemser, 1990). A dominant metaphor, therefore, is liberation (Feiman-Nemser, 1990; Liston & Zeichner, 1988; Zeichner & Liston, 1987). To create this image of teaching, teacher educators focus on helping candidates to "see social and political implications of their actions and the contexts in which they work, [and] to see how their everyday choices as teachers are necessarily joined to issues of social continuity and change" (Zeichner, 1993, p. 7). A primary focus is on helping candidates to reflect on the ways that the context limits or constrains their actions. Teacher educators see this as a first step toward changing the system (M. Burbank, personal communication, March 24, 1998).

The elementary education program at the University of Wisconsin-Madison is one example where several teacher educators use an inquiry orientation to guide their efforts. They expose candidates to multiple perspectives and have them analyze them with the belief that doing so increases the likelihood that candidates will experience conceptual change. Candidates examine how various conceptions of subject matter are produced, their underlying assumptions, and their impact on different groups of people. The goal is to help candidates become critical consumers of research and produce it through action research (Zeichner, 1993).

Predominant features of instruction include exposure to the perspectives of classroom

teachers, and critical analysis of programs professed to be research-based. Teacher educators use ethnographic studies, journals, action research, case studies that emphasize what candidates are learning, and they focus on multicultural teaching. Teacher education employs school-based supervisors and cohort groups (Zeichner, 1993). Further, some scholars advocate that candidates examine the oral histories of those they who have been ignored within the prevailing school culture (Giroux & McLaren, 1986). Both the approach and content should reflect the inquiry perspective (Zeichner, 1993).

Feiman-Nemser (1990) indicates that teacher educators who embrace an inquiry approach emphasize that a teacher's role includes: (a) creating a community of learners through group problem solving and the promotion of democratic values, (b) entering into policy-making within the school and participating in curriculum development, and (c) assuming a vigorous role in political action within the community "to improve school conditions and educational opportunities" (p. 226). Evident within the discourse surrounding this approach is that the instruction that candidates use with pupils is unclear. The perspective does not translate "into concrete classroom practices," but is more theoretical (p. 226).

Integrating Perspectives

As evidenced in the previous discussion, a supervisor's intervention in response to a candidate's lesson looks quite different when viewed from varying perspectives. Each perspective can enable a teacher educator to concentrate on a limited range of phenomena with varying degrees of magnification. No theoretical perspective, therefore, should be viewed as an account of the whole picture (Derry, 1996) since each restricts ones vision in some way. Nevertheless, much debate has ensued in recent years concerning which account best

represents reality (Cobb, 1996).

Because teaching and learning are complex endeavors, the efforts of many are needed to solve difficult problems. Calls for an integration of perspectives are becoming more prevalent to better account for the whole process (Bereiter, 1994; Cobb, 1996; Damon, 1991; Derry, 1996; Reynolds et al., 1996). Zeichner (1993) indicates that various teacher educators (i.e., Tom, 1991) suggest an integration of perspectives that "treats each one equally" (p. 8).

Although this paper discusses supervision from six perspectives, few approaches have actually been studied with teacher candidates. Cooper (1995) identifies three approaches that have been studied, one of which suggests that an integration of perspectives may warrant consideration. These three approaches include: "Siedentop's use of an applied behavioral approach; Gitlin's model of horizontal supervision; and Copeland's studies of directive and nondirective supervision" (p. 595).

The underlying assumptions of Siedentop's model emanate from behaviorism. The model includes: (a) the identification of competencies, (b) the design of an observation system that is reliable and valid, (c) significant changes in behavior due to observation and feedback, and (d) continued change from feedback and follow-up (Cooper, 1995). Gitlin's model, in contrast, is based on an inquiry approach. It consists of the supervisor and candidate collaboratively establishing goals. Cooper (1995) explains that using Gitlin's model "lessons focusing on the goals were observed and comparisons were made of the student teacher's practice compared with the intent" (p. 595).

Despite the stretch between these two models of supervision, Cooper (1995) notes that the findings from Copeland's studies suggest that an integration of behavioral and reflective

perspectives may be desirable, with each being used at different times depending on candidates' development. Early on, candidates preferred a directive approach where the supervisor offered immediate, useful suggestions that would help them alleviate instructional difficulties. Over the course of the experience, however, they progressively preferred a nondirective approach where the supervisor asked questions that solicited their thinking, and offered suggestions only when asked (Cooper, 1995). These findings suggest that both Siedentop's and Gitlin's models may be effective "depending on the student teacher's maturity and ability to be self-analytical" (p. 596). Nevertheless, some teacher educators loath the idea of a balanced integration of perspectives (See for example, Zeichner, 1993).

Issues and Future Research

When thinking about the implications of using a particular approach or integrating perspectives, teacher candidate supervisors should proceed with caution. Several problems exist in advocating that supervisors utilize interventions based on any of the six perspectives described and/or an integration of perspectives. McIntyre, Byrd, and Foxx (1996) indicate that solid empirical evidence is lacking for supervisory interventions. We do not have a clear picture concerning what teacher candidates learn and how their understandings differ from their supervisor's intentions using differing approaches to supervision. Central to this quandary is that we do not know what features of supervision teacher candidates actually attend to and why they learn from certain approaches but not others. That is, given candidates' prior knowledge, why are some approaches to supervision both meaningful to candidates and effective? Constructivism as a learning theory would lead us to believe that what teacher candidates learn is idiosyncratic based on their prior knowledge. Future studies

need to investigate if patterns exist in terms of what teacher candidates focus on and construct given differing supervisory interventions. The findings will begin to expand constructivist theory relative to its implications for supervision.

Table 1

Theoretical Perspectives within Teacher Education

Perspective	Basic premises		
	The learner	Knowledge	Teacher education
Behaviorism	Passive receptacle for storing knowledge	Positivist; mechanistic; experience produces knowledge within the individual	Organize instruction to reinforce skills so that teacher candidates can execute them
Information Processing	Active participant in constructing meaning from experience; active problem solver	Post-positivist; objectivity is a goal; knowledge is constrained by social interaction	Organize instruction for knowledge acquisition; provide teacher candidates with socially common ways to analyze and solve problems (continued)

Table 1 (Continued)

Theoretical Perspectives within Teacher Education

Perspective	Basic premises		
	The learner	Knowledge	Teacher education
Radical Constructivism	Active participant in constructing meaning	Post-modern; knowledge is produced by each individual rather than through experience; explanations are only valid for individuals while achieving goals in specific contexts	Provide problem situations in which teacher candidates can be guided through questioning to name concepts
Social Constructivism	Active participant in constructing meaning within a social context	Theories range along a continuum between positivism and post-modernism; knowledge determined by internalizing social interaction	Organize instruction for social interaction with peers and the instructor; maintain an assertive role to ensure that teacher candidates advance

(continued)

Table 1 (Continued)

Theoretical Perspectives within Teacher Education

Perspective	Basic premises		
	The learner	Knowledge	Teacher education
Humanistic Process Orientation	Active participant in constructing unique personal meanings	Post-modern; each teacher candidate's experience is emphasized	Promote psychological maturity; respond to individual concerns and needs; honor individual meanings; prompt reflection through questions
Inquiry Orientation	Active agent in critically consuming and producing knowledge	Post-modern; all action reflects a political choice and is one of many alternatives	Improve social justice in schools and society; encourage candidates to critically reflect on social/political implications of action in the classroom, school and community; develop an orientation toward political activism to shape environments for moral/ethical action

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